AMENDMENTS TO THE CLAIMS

1-23. (Cancelled)

24. (New) An assay kit for detecting one or more antibiotics containing a β-lactam ring in a liquid dairy product, said assay kit comprising:

(a) an assay device comprising a solid support, said solid support comprising (a) a first and a second end, and (b) the following membranes (i)-(iii), fixed in succession starting from the first end,

(i) a purification membrane which retains interfering substance(s) and allows antibiotics and detection reagents in the liquid dairy product to migrate by tangential capillary migration from the first end towards the second end of the solid support, while preserving the activity of the antibiotics and detection reagents during said migration, said interfering substance(s) being substances which prevent such migration, said purification membrane being made from non-woven polyester fibers,

(ii) an immobilization membrane comprising first and second capture substances, said first capture substance being one or more antibiotics containing a β-lactam ring which specifically bind to a receptor obtained from *Bacillus lichenformis*, said second capture substance being a substance which binds to an independent reference substance, and

(iii) an absorbent membrane,

(b) a detection reagent comprising a receptor obtained from *Bacillus lichenformis* which specifically binds to antibiotics containing a β-lactam ring, and

(c) optionally an independent reference substance.

25. (New) The assay kit according to claim 24, wherein said purification membrane is a membrane which retains leukocytes.

26. (New) The assay kit according to claim 24, wherein said solid support further comprises a deposition membrane having at least one deposited detection reagent, said deposition membrane being located at any position before said immobilization membrane.

27. (New) The assay kit according to claim 26, wherein said deposition membrane is located at any position (a) before said purification membrane or (b) between said purification membrane and said immobilization membrane.

28. (New) The assay kit according to claim 24, wherein said membranes on said solid support each are fully or partially covered by an adhesive plastic film.

29. (New) The assay kit according to claim 28, wherein said adhesive plastic film does not cover the first few millimetres of said assay device.

30. (New) The assay kit according to claim 24, wherein said detection reagent is coupled with at least one labeling agent.

31. (New) The assay kit according to claim 30, wherein said labeling agent is fluorescent, particulate, radioactive, luminescent or enzymatic.

32. (New) The assay kit according to claim 24, wherein the antibiotic is selected from the group consisting of benzylpenicillin, ampicillin, amoxicillin, carbenicillin, methycillin, cloxacillin, 6-APA, monolactam, aztreonam, mecillinam, cephalexin, cephaloglycine, cephaloridine, nitrocephin, cefatoxime, defuroxime, ceftiofur, cephapirin, and 7-ACA.

33. (New) The assay kit according to claim 24, wherein said receptor derived from *Bacillus licheniformis* is BlaR or BlaR-CTD.

34. (New) The assay kit according to claim 24, wherein said purification membrane comprises a pore diameter of about 8μm.

35. (New) The assay kit according to claim 24, wherein said purification membrane (a) comprises a pore diameter of about 8μm, (b) is capable of about 40-80% leukocyte immobilization, and (c) is hydrophilic.

36. (New) The assay kit according to claim 24, wherein the one or more antibiotics in the liquid dairy product are detected within 5 minutes or less.

37. (New) The assay kit according to claim 24, which detects penicillin G a concentration of 3 ppb.

38. (New) The assay kit according to claim 24, which detects ampicillin at a concentration of 4 ppb.

39. (New) The assay kit according to claim 24, which detects amoxycillin at a concentration of 4 ppb.

40. (New) A method for detecting one or more antibiotics in a liquid dairy product within 5 minutes or less using the assay kit according to claim 24, which comprises:

(a) placing a determined volume of the liquid dairy product in contact with an excess amount of the detection reagent of claim 24 relative to the amount of antibiotic or antibiotics in the liquid dairy product, the detection reagent comprising the receptor which specifically binds to antibiotics containing a β-lactam ring obtained from *Bacillus lichenformis,* to form a mixture,

(b) incubating the mixture under conditions which allow for formation of a complex between the antibiotic or antibiotics which are present in the liquid dairy product and the detection reagent,

(c) placing the mixture in contact with the first end of the solid support of the assay device of claim 24, to permit capillary migration of the mixture through the assay device, wherein said first capture substance forms a complex with the detection reagent which is not complexed with the antibiotic or antibiotics in the liquid dairy product, and

(d) detecting the antibiotic or antibiotics in the liquid dairy product by determining the amount of the detection reagent complexed with said first capture substance, wherein the amount of the detection reagent complexed with said first capture substance is inversely proportional to the amount of the antibiotic or antibiotics in the liquid dairy product.